

WHAT IS CLAIMED IS:

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Sub A 1 A DSL communication method for
interconnecting a user and a center by using a 2-
wire telephone line and a DSL communications
technology so that said user and said center perform
10 an intercommunication, the method comprising the
steps of:

monitoring a signal-to-noise ratio of an
accepted DSL;

15 { judging whether or not said signal-to-
noise ratio is within a predetermined range; and
interrupting said intercommunication once
and thereafter reconnecting said user and said
center, when said signal-to-noise ratio is judged
not to be within said predetermined range for a
20 duration longer than a reference time.

25 2. The DSL communication method as
claimed in claim 1, further comprising the step of
arbitrarily setting an upper limit and a lower limit
defining said predetermine range.

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3. The DSL communication method as
claimed in claim 1, further comprising the reference
35 time setting step of arbitrarily setting said
reference time.

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4. The DSL communication method as claimed in claim 2, further comprising the reference time setting step of arbitrarily setting said reference time.

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5. The DSL communication method as claimed in claim 3, wherein said reference time setting step sets a first reference time to be compared with a duration during which said signal-to-noise ratio is higher than an upper limit of said predetermined range, and sets a second reference time to be compared with a duration during which said signal-to-noise ratio is lower than an lower limit of said predetermined range, the first reference time being identical to the second reference time.

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6. The DSL communication method as claimed in claim 4, wherein said reference time setting step sets a first reference time to be compared with a duration during which said signal-to-noise ratio is higher than said upper limit, and sets a second reference time to be compared with a duration during which said signal-to-noise ratio is lower than said lower limit, the first reference time being identical to the second reference time.

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7. The DSL communication method as

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claimed in claim 3, wherein said reference time
setting step sets a first reference time to be
compared with a duration during which said signal-
to-noise ratio is higher than an upper limit of said
5 predetermined range, and sets a second reference
time to be compared with a duration during which
said signal-to-noise ratio is lower than an lower
limit of said predetermined range, the first
reference time being different from the second
10 reference time.

15 8. The DSL communication method as
claimed in claim 4, wherein said reference time
setting step sets a first reference time to be
compared with a duration during which said signal-
to-noise ratio is higher than said upper limit, and
20 sets a second reference time to be compared with a
duration during which said signal-to-noise ratio is
lower than said lower limit, the first reference
time being different from the second reference time.

25 9. A DSL communication device comprising:
a DSL-interface containing unit
30 interconnecting a user and a center by using a 2-
wire telephone line and a DSL communications
technology so as to perform an intercommunication
therebetween;
a line-quality monitoring unit monitoring
35 a signal-to-noise ratio of an accepted DSL;
a line-quality judging unit judging
whether or not said signal-to-noise ratio is within

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a predetermined range; and

a controlling unit causing said DSL-
interface containing unit to interrupt said
intercommunication once and to reconnect said user
and said center thereafter, when said signal-to-
noise ratio is judged not to be within said
predetermined range for a duration longer than a
reference time.

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10. The DSL communication device as
claimed in claim 9, further comprising a range
setting unit arbitrarily setting an upper limit and
a lower limit of said predetermine range.

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11. The DSL communication device as
claimed in claim 9, further comprising a reference
time setting unit arbitrarily setting said reference
time.

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12. The DSL communication device as
claimed in claim 10, further comprising a reference
time setting unit arbitrarily setting said reference
time.

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13. The DSL communication device as

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claimed in claim 11, wherein said reference time
setting unit sets a first reference time to be
compared with a duration during which said signal-
to-noise ratio is higher than an upper limit of said
5 predetermined range, and sets a second reference
time to be compared with a duration during which
said signal-to-noise ratio is lower than an lower
limit of said predetermined range, the first
reference time being identical to the second
10 reference time.

14. The DSL communication device as
claimed in claim 12, wherein said reference time
setting unit sets a first reference time to be
compared with a duration during which said signal-
to-noise ratio is higher than said upper limit, and
20 sets a second reference time to be compared with a
duration during which said signal-to-noise ratio is
lower than said lower limit, the first reference
time being identical to the second reference time.

15. The DSL communication device as
claimed in claim 11, wherein said reference time
30 setting unit sets a first reference time to be
compared with a duration during which said signal-
to-noise ratio is higher than an upper limit of said
predetermined range, and sets a second reference
time to be compared with a duration during which
35 said signal-to-noise ratio is lower than an lower
limit of said predetermined range, the first
reference time being different from the second

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reference time.

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16. The DSL communication device as
claimed in claim 12, wherein said reference time
setting unit sets a first reference time to be
compared with a duration during which said signal-
to-noise ratio is higher than said upper limit, and
sets a second reference time to be compared with a
duration during which said signal-to-noise ratio is
lower than said lower limit, the first reference
time being different from the second reference time.

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